PATENT

METHODS AND SYSTEMS FOR COMMUNICATING WITH CUSTOMERS

BACKGROUND OF THE INVENTION

1. FIELD OF THE INVENTION

[0001] The present invention relates generally to methods and systems for communicating with customers. More specifically, the present invention relates to methods and systems for communicating billing and non-billing information in a combined manner..

2. DESCRIPTION OF THE BACKGROUND

[0002] Conveying information to customers is often difficult due the media overload experienced in the marketplace. Consumers are inundated with information, particularly marketing messages and advertisements. This volume of information often renders current methods of conveying information to customers ineffective. Because they may feel overwhelmed, many consumers ignore everything that is not a bill.

[0003] Additionally, if some of the information is not pertinent to a specific customer, that customer may be less likely to continue reading the information presented. Information that might be useful or interesting to the customer may get lost in the information deluge. Even bill inserts are often ignored or discarded, or receive only a cursory glance.

[0004] These and other problems are avoided and numerous other advantages are provided by the methods and systems of the present invention.

SUMMARY OF THE INVENTION

[0005] One embodiment of the present invention comprises a method and system for communicating with customers in which pre-selected non-billing information is combined with a customer's billing information to create a customized newsletter. In accordance with a more specific aspect, an embodiment of the present invention may employ a computer database and a set of classifications that are correlated to customer traits. The vendor assigns

classifications to customers, and records the assigned classifications in the database. The vendor also selects items of non-billing information to convey to customers, assigns classifications to the items, and records the items and the associated classifications in the database. Then, the database combines billing information for a customer with non-billing information that has a classification matching a classification assigned to the customer, thereby creating a customized newsletter.

[0006] One object of the invention is to reduce the amount of information received by a customer. Implementation of the invention may result in consolidated communication and elimination of bill inserts. Further, by tailoring the information for each customer, the information is presented more efficiently, and volume is reduced. Implementation of the invention may also engender greater customer loyalty, if the customized information is perceived by the customer as beneficial.

[0007] Another object of the invention is to increase the likelihood that information will be successfully conveyed to a customer by including the bill with the non-billing information. In addition, in one embodiment, the billing information is not always located in the same area of the newsletter. This may induce a customer to read non-billing information while searching for the billing information, particularly since the information is tailored to the customer.

BRIEF DESCRIPTION OF THE DRAWINGS

[0008] Figure 1 is a representation of a networked computing environment in which an embodiment of the present invention may be practiced.

[0009] Figure 2 is a flowchart illustrating the logical steps of a method according to the present invention.

[0010] Figure 3 is a pictorial representation of a relational database.

[0011] Figure 4 is a pictorial representation of a customized newsletter.

[0012] Figure 5 is a pictorial representation of a customized newsletter.

DETAILED DESCRIPTION

[0013] An example of a system 101 embodying the present invention is shown in Figure 1. The system 101 includes a server 109 having a processor and data store (not shown) associated therewith. The server 109 is configured for connection 111 to a network and is connected to a communication network 103. A plurality of user terminals 105a, 105b, 105c, and 105d, are also configured for connection 107a, 107b, 107c, and 107d to the network 103 and are connected to the network 103. Each user terminal (collectively 105) has a processor and a data store (not shown) associated therewith. Additionally, a printer 113 that is configured for connection 115 to a network, is connected to the communication network 103.

[0014] The data stores associated with the server 109, and the user terminals 105 encompass both long term storage, such as a hard drive, and short term storage, such as random access memory (RAM). The communication network 103 could be any communication network, including a local area network, a wide area network, or the Internet. The server 109 could be any file server, for example: a mainframe computer; a personal computer, such as is commercially available from IBM™ or Apple™; or a server, such as is commercially available from Sun Microsystems™ or Hewlett-Packard™.

[0015] A user terminal 105 could be any computer capable of communicating with a network, including: a mainframe terminal; a personal computer, such as is commercially available from IBM™ or Apple™; or a UNIX workstation, such as is commercially available from Sun Microsystems™ or Hewlett-Packard™. Further, each of the user terminals 105a, 105b, 105c, and 105d may be different. All of these configurations, as well as the appropriate communications hardware and software are known in the art. The printer 113 could be any printer computer capable of communicating with a network, such as a printer that is commercially available from Hewlett-Packard™. In an alternative embodiment, the printer may be connected directly to the server 109, or a user terminal 105.

[0016] Figure 2 shows a flow chart depicting a method in accordance with the invention for combining billing and non-billing information and creating

customized newsletters. For illustrative purposes, the method is discussed in the context of a simplified example with reference to Figure 3, 4, and 5, and the embodiment depicted in Figure 1. It will be appreciated by those of ordinary skill in the art that this is but one of a variety of ways in which this invention may be employed.

[0017] Some actions of this method are taken by an operator. Such an operator may be a vendor, or an agent of the vendor, and there may be more than one operator. In the current example, the vendor sells telecommunications equipment and services.

[0018] In step 201, an operator develops a set of classifications correlated to customer traits. For example, the classifications may include equipment and services available from the vendor, such as Internet services, wireless services, or international long-distance-services. Further, the classifications may include characteristics about the customer, such as the zip code in which the customer lives.

[0019] In one embodiment, the development of classifications correlated to customer traits may be accomplished automatically with a computer by employing standard data mining techniques. For example, zip codes may be culled from previous billing information. In addition, data mining examination of prior sales data may reveal a trend among some customers to purchase new technologies early in product cycles. This may result in an "early technology adopter" classification.

[0020] Figure 3 is a pictorial representation of a relational database 315 such as may be created in accordance with the method described in Figure 2. This database 315 is made up of three database tables: a customer table 301, a billing information table 303, and a non-billing information table 305. Fields and records define the structure of database tables. Analogizing to a spreadsheet, a field is similar to a column heading, and a record is similar to a row. The database 315, and the database tables contained therein are created during this example in accordance with the present invention.

[0021] The customer table 301 contains information about the customers, and has such fields as "customer name", and "customer address". Each record in

the customer table 301 is a profile of a particular customer. Each record in the customer table 301 also has a unique entry in the field "unique customer identifier". One purpose of such unique identifiers is to differentiate records from each other. In addition, the customer table 301 has fields representing the classifications developed in step 201. In this example, if a customer is associated with a classification, an "x" appears in the field associated with the particular classification in the customer's record. For example, in the customer table 301, customer K. Smith (unique customer identifier 100006) is associated with two classifications: "general", and "international long-distance".

[0022] The billing information table 303 contains periodic billing information and has fields such as unique customer identifier and a billing amount. In this example, the billing period is monthly. Another purpose of unique identifiers is to establish one to one relationships between different tables. For example, the billing information table 303 is related 307 to the customer table 301 through the respective unique customer identifier fields in a one to one relationship. In other words, there is only one billing amount for a given customer.

[0023] The non-billing information table 305 has such fields as the non-billing information text, as well as fields representing the classifications developed in step 201. Each record in the non-billing information table 305 is a profile of a particular item of non-billing information. In this example, if an item of non-billing information is associated with a classification, then, in the item's record, an "x" appears in the field associated with the particular classification. For example, in the non-billing information table 305, the item regarding the rate decrease for calls to Western Europe (unique item identifier T6002) is associated with the classification "international long-distance". Additionally, the non-billing information table 305 is related 309 to the customer table 301 through the respective classifications. This relationship 309, is not a one to one relationship; both customers and non-billing information items may be associated with more than one classification.

[0024] Referring again to Figure 2, in step 203, an operator chooses items of non-billing information to communicate with customers. For example, an

operator may have six items of information: two may involve rate changes, one may be new product information, one may contain information about technology updates, one may be locally pertinent information, and the last may report the appointment of a new board member to the vendor's board of directors. The operator may think that the first five items may be of greater interest to customers than the last item, and therefore may choose the first five items to communicate with customers.

[0025] After such information is chosen, in step 205, an operator creates a non-billing information table 305 in a database 315. The server 109 houses the database 315, and an operator accesses the database 315 from a user terminal 105a via the communication network 103. An operator may use a customized database application, or may use a commercially available database application, such as Microsoft Access™. If using such a commercially available application, an operator may create the table by selecting "New" from the "File" menu. The operator creates at least one field to house the text of the chosen non-billing information items.

[0026] Additionally, when creating the non-billing information table 305, an operator must create some capability to classify the items of non-billing information using the set of classifications developed in step 201. One way to accomplish this is to create a field in the table for each of the classifications, such as shown in Figure 3. One of ordinary skill in the art will appreciate that this is but one of several approaches to create this capability.

[0027] Referring again to Figure 2, in step 207, an operator selects an item of non-billing information. The order in which items of non-billing information are selected is unimportant, and thus any item of non-billing information may be selected. An operator may select an item of non-billing information by clicking on the record. Next, in step 209, an operator assigns applicable classifications to the selected item of non-billing information and records the applicable classifications in the non-billing information table 305. An operator may assign and record an applicable classification by typing a mark in the classification field of the current record. In Figure 3, such mark is shown as an "x". For example, for the item

regarding the decrease in local phone rates, an operator assigned the classification "general" and typed an "x" in the "General" field of the record.

[0028] Then, in step 211, the method loops back to step 207 and an operator selects an unselected item of non-billing information. The loop between steps 207 and 211 continues until all items of non-billing information have been selected, and the respective assigned classifications have been recorded in the non-billing information table 305.

[0029] After selection and classification of non-billing information, in step 213, an operator creates a customer table 301 in a database 315. For example, an operator may create the table by selecting "New" from the "File" menu. As noted previously, an operator fills in the customer table 301 with information about the customers, such as "name" and "address".

[0030] Additionally, when creating the customer table 301, an operator must create some capability to classify the customers using the set of classifications developed in step 201. One way to accomplish this is to create a field in the table for each of the classifications, such as shown in Figure 3. One of ordinary skill in the art will appreciate that this is but one of several approaches to create this capability.

[0031] In step 215, an operator selects a customer in the customer table 301, for example by clicking on the record. The order in which customers are selected is unimportant, thus any customer may be selected. Next, in step 217, an operator assigns applicable classifications to the selected customer and records the applicable classifications in the customer table 301. An operator may assign and record an applicable classification by typing a mark in the classification field of the current record. In Figure 3, such mark is shown as an "x". It should be noted again that more than one classification may be applicable to a given customer. For example, referring to the customer table 301 in Figure 3, for customer K. Smith (unique customer identifier 100006), an operator assigned the classifications "general" and "international long distance", and typed an "x" in both the "General" field, and the "International Long Distance" of the record.

[0032] In this example, all customers are assigned a default classification of "general". In one embodiment, a customer may opt out of the customized

newsletter. No classifications are assigned to such a customer. In this example, customer S. Jones (unique customer identifier 100007) opted out of the customized newsletter, and no classifications were assigned.

[0033] Next, in step 219, the method loops back to step 215, whereupon an operator selects a previously unselected customer, and proceeds in step 217 to assign applicable classifications to the selected customer and record such classifications in the customer table 301 as described above. This loop continues until all customers have been selected.

[0034] In one embodiment, the assignment of classifications to customers in steps 215 through 219 may be accomplished automatically with a computer by employing standard computer programming and data mining techniques. For example, a data mining program may cull a customer's zip code, and what equipment or services the customer previously purchased from prior sales and billing data. Additionally, such a program may compare product release dates to purchase dates to determine whether a customer may be classified as an early technology adopter.

[0035] In step 221, following the assignment of classifications to customers in steps 215 through 219, an operator creates a billing information table 303 in the database 315. For example, an operator may create the table by selecting "New" from the "File" menu. As noted previously, an operator fills in the billing information table 303 with periodic billing information.

[0036] In one embodiment, the loop from step 223 to step 227 is accomplished by an automated report programmed into the database 315 using standard programming techniques. In step 223, the software program selects a customer in the customer table 301. The order in which customers are selected is unimportant, thus any customer may be selected. In step 225, the software program combines the billing information for the selected customer from the billing information table 303 with items of non-billing information from the non-billing information table 305 that were assigned a classification matching a classification assigned to the selected customer in the customer table 301. This combination results in a customized newsletter. In one embodiment, the software prints the customized newsletter via a printer. In step 227, the software program

selects an unselected customer, and the method loops back to step 225. This loop continues until all customers have been selected.

[0037] Figures 4 illustrates an example of a customized newsletter. In newsletter 401, K. Smith was the selected customer. The software program retrieved the address from the customer table 301, and the billing amount from the billing information table 303. Also from the customer table 301, the software program retrieved the classifications assigned to K. Smith (general and international long distance). The software program then retrieved items from the non-billing information table 305 that matched these classifications, namely the local telephone rate reduction and the rate reduction for western European telephone calls, and printed the customized newsletter.

[0038] In step 229, an operator conveys the customized newsletters to customers, and then the method ends 231. In one embodiment, the operator conveys the printed customized newsletters using standard delivery systems, such as the United States Postal Service™, FedEx™, UPS™, or hand delivery. In another embodiment, the customized newsletters are not printed, but rather conveyed to customers electronically. For example, a customer may access a secure web page that contains the customized newsletter. Additionally, the database 315 and server 109 may be configured using standard software techniques to convey a customized newsletter via electronic message. Similarly, the database 315 and server 109 may be configured using standard software techniques to convey an electronic message containing a URL (uniform resource locator) that directs the customer to a secure web page that contains the customized newsletter. In one embodiment, customers receive customized newsletters by means of an electronic device such as a computer, a cellular telephone, or a personal digital assistant (PDA), such as is commercially available from Palm Inc.™, Compaq™, Sony™, or Visor™.

[0039] The invention is further illustrated by the following example. In this example, it is assumed that a customer, R. Jackson resides in zip code 30309, and purchases local telephone services, ISP services, and wireless telephone services from a vendor on an ongoing basis. It is also assumed that R. Jackson signed up for the ISP services within one week of availability in his area, and

purchased the newest model wireless telephone that was available when he initially purchased the wireless telephone services.

[0040] An operator develops five classifications based on traits of the vendor's customers: general, a default category that refers to all customers (except those opting out of the customized newsletter); early technology adopter, associated with customers that adopt new technologies early in product cycles and embrace the cutting edge of technology developments; ISP, associated with customers that purchase ISP services from the vendor; wireless, associated with customers that purchase wireless services from the vendor; international long distance, associated with customers that purchase international long distance services from the vendor; and zip code 30309, associated with customers residing in zip code 30309.

[0041] An operator then chooses five items of information to convey to customers. The first item is about a reduction in rates for local telephone services. The next item is about a rate reduction for calls to Western Europe. The third item is a short story about the vendor purchasing uniforms for the baseball team of a high school in zip code 30309. Next is an item about a modem bank expansion to increase availability for dial-up Internet services. And finally, an item about the availability of a new web-enabled digital wireless phone that is the size of a credit card.

[0042] Referring to Figure 3, an operator then creates a non-billing information table 305 in a database 315 and inputs the five items of information. Next, an operator classifies each of these items of information using the set of classifications previously developed, and enters the classifications in the non-billing information table 305. The operator classifies the local telephone rate decrease item as general, since most of the vendor's customer's purchase local-telephone services from the vendor. The operator then proceeds to classify the item about the Western European rate decrease as international long distance, the baseball team item as zip code 30309, and the modem bank expansion item as ISP. The operator assigns three classifications to the last item about the new digital wireless phone. Since the phone is web enabled, the phone is classified under ISP and because it is a wireless phone, the item receives a wireless classification. The

operator also classifies the item as early technology adopter, because the product represents cutting edge technology.

[0043] Next an operator creates a customer table 301 in the database 315 and inputs the customer information such as name and address. The operator also assigns classifications to the customers and enters these classifications in the customer table 301. The operator assigns R. Jackson the next available unique customer identifier, 100010, and the default category of "general". Because R. Jackson purchases ISP and wireless telephone services from the vendor, those classifications are assigned to R. Jackson's record. Similarly, since R. Jackson resides in zip code 30309, that classification is also assigned to R. Jackson's record. Additionally, since R. Jackson signed up for the ISP services within one week of availability in his area, and purchased the newest model wireless telephone that was available when he initially purchased the wireless telephone services, the operator also assigns the early technology adopter classification to the R. Jackson record.

[0044] An operator then creates a billing information table 303 in the database 315 made up of unique customer identifiers and the associated monthly billing amount. R. Jackson's monthly bill for the previous month was $62.68. The next step is combining the billing information with the non-billing information to create a customized newsletter. In Figure 4, the second newsletter 403 represents this combination for R. Jackson.

[0045] The automated report, programmed into the database 315 using standard programming techniques, selects R. Jackson from the customer table 301, and also retrieves the name and address from the customer table 301. The software program also retrieves the classifications assigned to R. Jackson from the customer table 301 (general, early technology adopter, ISP, wireless, and zip code 30309).

[0046] Next, the software program retrieves items from the non-billing information table 305 that match these classifications: the local telephone rate reduction, the high school baseball support from the vendor, the modem bank expansion, and the new digital telephone. It should be noted that because the item concerning the new digital telephone had three classifications, it would have

appeared in the customized newsletter of a customer having any of the three classifications.

[0047] The software program then retrieves the billing amount associated with the unique customer identifier from the billing information table 303 ($62.68), and prints the customized newsletter. Figure 5 illustrates an example of this customized newsletter. The operator then conveys the customized newsletter to the customer via the United States Postal Service.

[0048] An example of another alternative system embodying the present invention is a stand-alone computer, having a processor and data store associated therewith, and being connected to a printer. The computer could be any computer capable of communicating with a printer, for example: a personal computer, such as is commercially available from IBM™ or Apple™; a server, such as is commercially available from Sun Microsystems™ or Hewlett-Packard™; or a UNIX workstation, such as is commercially available from Sun Microsystems™ or Hewlett-Packard™. The printer could be any printer capable of communicating with the computer, such as a printer that is commercially available from Hewlett-Packard™. These configurations are also known in the art.

[0049] It will be apparent to those with skill in the art that there are many alterations that may be made in the embodiments of the invention described above without departing from the spirit and scope of the invention. For example, there are many ways that circuits and electronic elements may be combined to implement the method and system described herein in various systems and hardware environments. The present invention may be implemented in various network environments, including wireless and computer networks, or other networks supporting electronic devices. There are similarly many ways that independent programmers might provide software to provide the functionality associated with the present invention as taught herein without departing from the spirit and scope of the invention. Having thus generally described the invention, the same will become better understood from the following claims in which it is set forth in a non-limiting manner.